The Citrus Industry

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Florida Citrus Commission Exerts Great Activity In Citrus Research

Under the leadership of Dr. L. G. MacDowell, its director, the research department of the Florida Citrus Commission continues to make invaluable contributions to the health of the industry, a perusal of the annual report of the unit reveals.

By broadening the base of its experimental work it is continually opening new possibilities for the expansion of fresh fruit, canned citrus, and citrus by-products in a manner which augurs well for the future of the business, citrus observers point out.

It might be called "the silent service" of the citrus industry, for little is heard of its activities outside of the immediate circle of professional citrus producers. Not more than five per cent of the people of the state know of its existence, it has been estimated.

This is amazing to those who are familiar with the ramifications and importance of the research department. They point out the fact that there is no other single department in the state government of such potential value to the people of Florida.

The Department divides its efforts and interests into three major parts:

1. Research on fresh fruit processing; i. e., its preparation for the market.
2. Research on by-products, canned juices and concentrates.
3. Nutritional research.

Although the research department is composed of a group of scientists working on experimental lines which can only be vaguely understood by the average layman, their ultimate objective is plain enough to be understood — and approved — by anyone: To obtain the largest return possible to the growers of citrus fruit.

This can only be done by finding ways and means to increase constantly the markets for fresh, canned and processed fruit, and its by-products. This can be achieved in two ways: broaden the base of the markets for the fruit and by-products already in use; and by creating new markets for hitherto unsuspected by-products as they continue to be developed.

The problem in the disposal of fresh fruit, it is said, is to distribute it as widely as possible; the ultimate aim being to have a box of Florida oranges in every cross roads store in the country. To hasten that achievement, the major effort of Florida citrus advertising must be directed toward increased consumer purchase.

Such a program, however, cannot be fully effective unless a greater control of fruit decay is first achieved. It is pointed out that if the percentage of decay is reduced (that is, delayed) it will encourage retail buyers to increase the amount of their average purchases, it will reduce the sales resistance of wholesalers who now discount in advance the effects of decay, and it will, of course, improve the general quality and appearance of the fruit which is shipped.

In order to expedite the reduction in decay, the research department is cooperating very closely on this matter with the University of Florida Experiment Station at Lake Alfred where, under the direction of Dr. A. F. Camp, 50 to 60 acres of grove, subdivided into experimental plots, are under constant supervision. Due to the research conducted at Lake Alfred, tremendous strides have been made in spraying and in methods of production which have been instrumental in producing the yield of fruit per acre.

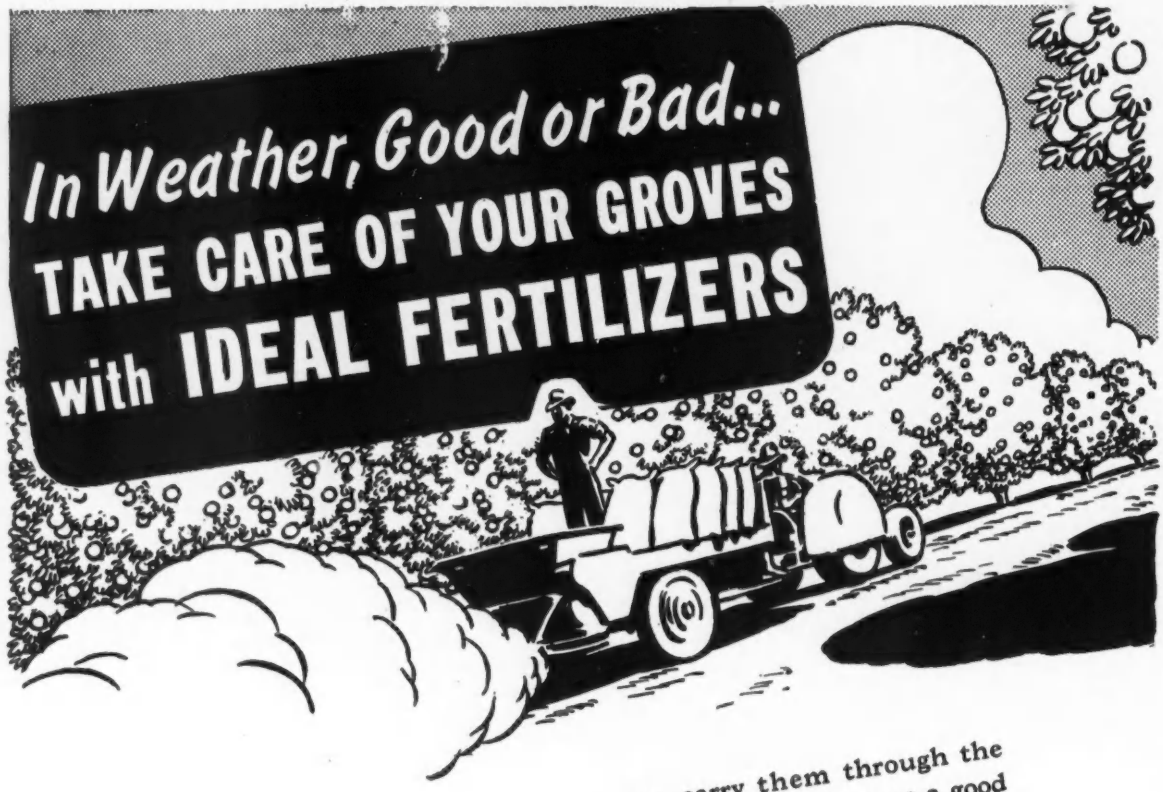
Four employees of the research department of the Florida Citrus Commission are currently working under Dr. Camp's supervision in the field of research on methods of processing. They are not, however, concerned with problems of production. This is an instance of how the commission uses its funds to further work already in progress.

The research department fully realizes the importance to the industry of the control of decay and it is devoting its best efforts to this end. During the present year this work has largely been concerned with obtaining certain fundamental information on combatting stem end rot in the fruit itself after it has been picked. This has supplemented the work of former years which was carried out through the improvement of cultural, picking, and packing house methods.

Since it is known that the decay organisms enter the fruit through its stem, the department has given considerable thought to the methods of preventing this entrance. Ways and means of removing the button from the fruit, as well as sterilizing the susceptible portions have been investigated. It is felt that this work has laid the ground for the effective control of rot in citrus.

The Department is also working in closest cooperation with the Citrus Inspection Bureau at Winter Haven, where statistical information concerning the internal qualities of the

(Continued on page 9)



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Ceiling Prices Governing Florida Citrus Fruit

J. W. REITZ1 and H. G. HAMILTON2

At the beginning of a new citrus season, it may be desirable not only to state what the price ceilings are but to explain the method of establishing ceiling prices for Florida citrus fruits.

Citrus fruits were first brought under ceiling prices as to processed products May 5, 1942, and as to fresh fruit October 5, 1942, but temporary Maximum Price Regulation 22, covering fresh citrus was terminated December 3, 1942, and the regulation covering processed fruit has been superseded by later regulations. On January 11, 1943, Maximum Price Regulation 292, a special regulation applicable only to citrus fruits, became effective. Maximum Price Regulation 426, Appendix I, issued February 18, 1944 and effective February 23, 1944 as to f. o. b. prices and March 9, 1944 as to all other prices, supersedes the provisions of Maximum Price Regulation 292.

Under section 3 of the Stabilization Act of October 2, 1942, maximum prices for citrus fruits may not be fixed at a level which will reflect to growers a price lower than the highest of : (1) parity prices or comparable prices, when comparable prices have been substituted for parity prices as a result of the production and consumption of the commodity having so changed as to result in a price out of line with parity prices of the basic commodities as provided for in section 3(b) of the Emergency Price Control Act of 1942; (2) the highest price between January 1 and September 15, 1942 when adjusted for seasonal variation; or (3) a price sufficient to cover the increases in labor and other cash costs and depreciation since January 1, 1941.

The U. S. comparable price as of August 15, 1944, was $1.99 per box for oranges and $0.89 per box for grapefruit. The highest price from January 1 to September 15, 1942, when adjusted for seasonal variations, was $1.50 per box for oranges and $0.95 per box for grapefruit. A price sufficient to cover the increase in cash cost of growing oranges and grapefruit since January 1, 1941, plus the parity price of January 1, 1942, would be somewhat less than either the highest price or comparable price. The highest of these three prices is the legal minimum price. Therefore, the legal minimum price as of August 15, 1944, is the comparable parity price for oranges of $1.99 and for grapefruit, the highest price from January 1 to September 15, $0.95 per box. It is often that maximum prices are set slightly above legal minimum prices. In some cases prices are supported at much above the legal minimum price, and ceilings, unless supplemented by a subsidy, are not fixed at below the support price. For example, raisins are supported at 160% of parity.

In issuing Maximum Price Regulation 426, Appendix I, covering citrus fruit, the method of arriving at f. o. b. prices is not explained. Presumably, the U. S. on-tree base price of $2.67 per box for oranges was arrived at by using the U. S. on-tree comparable base period price, 1933 to 1940, of $1.81 per box and adding $0.13 per box to allow for increase in prices farmers pay as of November 15, 1943, the approximate date work was started on Maximum Price Regulation 426, Appendix I, $0.08 per box for fresh differential (since the base price is for all oranges both fresh and processing use) and $0.50 per box for grade and size cushion /1. In addition, $0.15 per box was added either to allow for future increases in prices of commodities

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purchased by farmers or to provide a price high enough to reflect the U. S. marketing agreement parity price for oranges of $2.67 per box. After the U. S. base price price of $2.67 per box is established, then the Florida-Texas price is arrived at by deducting from the U. S. base price $0.26 per box and the California-Arizona base price is arrived at by adding $0.18 per box, such differential being the historical differential for the 1940-41 and 1941-42 seasons.

In the case of grapefruit, the U. S. on-tree base price is $1.70, which is above the legal minimum price of $1.45 per box, when allowance of $0.50 per box for grade and size cushion is made, by $0.25 per box and is $0.05 per box higher than the U. S. marketing agreement parity price. While marketing agreement parity prices have not been recognized for fixing maximum prices, it is significant that in the case of both oranges and grapefruit the maximum prices fixed are adequate to reflect marketing agreement parity price. The Florida-Texas base price is arrived at by deducting $0.06 per box from the U. S. base price and the California-Arizona base price is arrived at by adding $0.25 per box to the U. S. base price.

For processing fruit, maximum price regulations may not be instituted which will reflect to growers prices below the legal minimum, with proper use, area, and seasonal differentials. The U. S. comparable base price for oranges is $1.81 per box, the index of prices paid by farmers August 15, 1944 was 110; hence, the comparable parity price as of August 15, 1944 was $1.99 per box ($1.81+110=$1.99). Allowing for an area differential of —$0.24 per box (1940-1941 average) for Florida and a processing differential of —$0.16 per box, a price of $1.59 per box is obtained which would be the legal minimum price for Florida processed oranges.

In the case of grapefruit, the legal minimum price of grapefruit for processing is $0.89 per box — the highest price between January 1 and September 15, 1944, all uses, of $0.95 per box plus $0.06 for area differential (average 1938 to 1941 seasons) and minus $0.12 for processing differential ($0.95+$0.06 —$0.12=$0.89).

It should be pointed out, however, in the case of both fresh and processing fruit, that the Stabilization Act does not specify the formula for establishing area, use, and season differentials. This is left to the discretion of those who write the Maximum Price Regulations. Different legal minimum prices for an area, variety or season might result with the use of different years for establishing differentials.

Under Appendix I of Maximum Price Regulation 426, there is no on-tree ceiling established except for fruit sold other than to packers who do not regularly operate a packing plant and who do not pack and ship the particular kind of

Tabl e1. — Probable Method of Arriving at U. S. Base Price and State Base Price for Oranges and Grapefruit

	Florida and Texas	California and Arizona
ORANGES		
U. S. base comparable price	$1.18	$1.81
Nov. index increase of prices paid by farmers (107) (Nov. 15.)	+.13	+.13
U. S. comparable price, Nov. 15, 1943	$1.94	$1.94
Fresh use differential	+.08	+.08
	$2.02	$2.02
Grand and size cushion	+.50	+.50
	$2.52	$2.52
Plus 6% to allow for future increase in index of prices paid by farmers	+.15	+.15
U. S. base price (on tree)	$2.67	$2.67
State differential	—.26	+.18
Area base price	$2.41	$2.85
GRAPEFRUIT		
U. S. base price (on-tree) (including 50c per box grade and size cushion)	$1.70	$1.70
State differential	—.06	+.25
State base price	$1.64	$1.95

/1 The Stabilization Act requires that prices be fixed by grade and size or a reasonable allowance be added to the legal minimum to permit the better grades and sizes to sell at their normal relationship.

Table 2. — Derivation of On-Tree Prices and F. O. B. Price Ceilings on Florida Citrus, 1944-45 Season

	Oranges				Tangerines Temples, Kings Clementines Satsumas Tangelos	White Grapefruit				Pink Grapefruit	
	Interior		Indian River		State	Interior		Indian River		State	
	Sept. 1 Feb. 28	Mar. 1 Aug. 31	Sept. 1 Feb. 28	Mar. 1 Aug. 31	Sept. 1 Aug. 31	Sept. 1 Feb. 28	Mar. 1 Aug. 31	Sept. 1 Feb. 28	Mar. 1 Aug. 31	Sept. 1 Feb. 28	Mar. 1 Aug. 31
1. Florida base price	$2.41	$2.41	$2.41	$2.41	$2.41	$1.64	$1.64	$1.64	$1.64	$1.64	$1.64
2. Variety differential	—.03	—.03	—.03	—.03	+.35	—.02	—.02	—.02	—.02	+.33	+.33
3. Variety base price	2.38	2.38	2.38	2.38	2.76	1.62	1.62	1.62	1.62	1.97	1.97
4. Seasonal differential	—.11	+.19	—.11	+.19		—.11	+.15	—.11	+.15	—.06	+.15
5. Seasonal adjusted price	2.27	2.57	2.27	2.57	2.76	1.51	1.77	1.51	1.77	1.91	2.12
6. Area differential	—.02	—.02	+.42	+.24		—.05	—.05	+.45	+.45		
7. On-tree reflected price	2.25	2.55	2.69	2.81	2.76	1.46	1.72	1.96	2.22	1.91	2.12
8. Allowance for pick, haul, and pack	1.20	1.20	1.20	1.20	1.70	1.05	1.05	1.05	1.05	1.05	1.05
9. F. O. B. ceiling	3.45	3.75	3.89	4.01	4.46	2.51	2.77	3.01	3.27	2.96	3.17

fruit. However, in arriving at the f. o. b. ceiling with which most growers and shippers are familiar, the Office of Price Administration in carrying out the mandate of Congress must reflect the highest of the above mentioned provisions to the grower. The method of arriving at this on-tree base price is shown in Table 1, and the resultant f. o. b. ceiling is shown in Table 2. It will be observed that the Florida base price, the derivation of which is shown in Table 1, is $2.41 for oranges, including tangerines and related varieties, and $1.64 for grapefruit. From these base prices, a variety differential is first made. In the case of oranges other than tangerines, temples, clementines, satsumas, and tangelos, the varietal differential is a —$0.03 which permits a differential of +$0.35 for the tangerine group. Similarly, white grapefruit has a varietal differential of —$0.02 while pink grapefruit is favored with a +$0.33. The next adjustment made is in seasonal differentials. In the case of oranges and grapefruit, the differential is based upon normal historical relationships. There is no seasonal differential for the tangerine group. The last adjustment before reaching the on-tree price is one which reflects the normal variation in prices between the Interior and Indian River areas. In the case of oranges, the Interior area is reduced $0.02 and the Indian River area is increased $0.42 and $0.24 for the beginning and ending periods, respectively. For white grapefruit, the areal differential is —$0.05 for Interiol and +$0.45 for Indian River. There is no areal differential for pink grapefruit. After making adjustments for areal differentials, we then have the on-tree reflected price to which is added an allowance to cover picking, hauling, and packing which is $1.20, $1.70 and $1.05 for oranges, tangerines, and grapefruit, respectively. With this allowance added to the on-tree reflected price, the f.o.b. ceiling is reached, which is shown on the last line of Table 2 for each of the particular kinds of citrus fruit by seasons.

The ceilings prices, it should be emphasized, are merely the maximum beyond which the price can not legally go. They are in no sense guaranteed or support prices, and the actual market prices are free to fluctuate below these ceilings in accordance with supply and demand conditions.

There are many in the industry who are primarily concerned with f. o. b. ceilings or the reflected on-tree prices, yet there are many others who are also interested in seeing how these ceiling prices are translated into final consumer prices. The respective distributive markups between the shipping point and the consumer are shown in Table 3. The illustration applies to the fruit delivered in New York City or any other area which may have the same freight and protective service charge. It also applies only to the first part of the ceiling period from September 1 through February 28. In arriving at a delivered ceiling price any shipper in Florida may add the freight charge from Homestead, Florida, to the delivery point plus $0.10 per box for protective services. In the case of pink grapefruit only, he may add the freight rate from Weslaco, Texas, to the point of delivery. The respective transportation charges including the 3 per cent tax to New York City are $0.90 for oranges and white grapefruit, $0.90 for tangerines, and $1.14 for pink grapefruit. By having a uniform basing point for computing transportation charges, the delivery price of fruit is thus the same irrespective of point of origin. This works to the advantage of the majority of citrus shippers in Florida in that they can sell on a delivered price basis and receive in effect more than the f. o. b. price simply because their freight rate is lower than the Homestead rate to the terminal market. The principle is even more significant for shippers of pink grapefruit in that they may charge $1.14 for freight and protective services when in effect their actual freight charges are much lower. By having the basing point for pink grapefruit at Weslaco, Texas, and selling on a delivered basis, shippers of pink grapefruit in Florida can net back provided fruit is selling at ceiling more than the announced f. o. b. ceiling on pink grapefruit in a sufficient sum to get a plus differential for pink grapefruit over Indian River white grapefruit even though the f. o. b. ceilings do not show such a differential.

Accepting the delivered price, the jobbing interest may add $0.75, $0.90 and $0.65 per box, respectively, for oranges, tangerines, and grapefruit. These are the maximum amounts which may be added irrespective of the number of handlers between the delivery point and the retailer. In case the fruit moves through carlot wholesalers to the retailer, and other than the regular type of jobber, the markup can not legally reach the amount shown above. If, however, we assume that the maximum jobbing markup is taken, we arrive at the price paid by the retailer which is shown in line 5 of Table 3. Once the fruit is in the hands of the retailer fixed dollar and cents markups cease and the retailer, if he is an independent and his annual sales per store are less than $250,000, may add 39 percent to the price he paid for the fruit. This maximum retail markup varies from $1.58 for white grapefruit to $2.44 for tangerines in New York City. After adding the retail markup, the price per box to the consumer is found. Translating these prices per box into a dozen or piece or pound basis is shown in the last three lines of Table 3.

A comparison of these computed ceilings to the consumer on the basis of announced price regulations reveals a considerable variation in

Table 3. — Distribution Allowances and Consumer Ceilings in New York City*
Interior - September 1 through February 28

	Oranges	Tangerines	White Grapefruit	Pink Grapefruit
F. O. B. ceiling (Table 2)	$3.45	$4.46	$2.51	$2.96
Freight and protective service	.90	.90	.90	1.14
Delivered price	$4.35	$5.36	$3.41	$4.10
Maximum jobbing markup	.75	.90	.65	.65
Maximum price to retailer	$5.10	$6.26	$4.06	$4.75
Retailer's markup (30%)	1.99	2.44	1.58	1.85
Price to consumer	$7.09	$8.70	$5.64	$6.60
Price:				
Per dozen, size 216	.394	.486		
Per piece, size 64			.088	.103
Per pound	.079	.097	.071	.083

* Also applies to Baltimore, Philadelphia, Jersey City and Newark.

many of the community price ceilings announced for different parts of the United States. Perhaps a part of this variation is the result of adding to the maximum jobbing markup an allowance for freight beyond free delivery zones which regional and district OPA offices are empowered to make. Yet in many other instances, the retail ceilings announced are seriously out of line with the provisions of the maximum price regulations. For example, some community areas in Georgia show a price per dozen of size 150 oranges $0.03 higher than a community ceiling for an area in New York state. Another interesting thing revealed in community price announcements to consumers is that in the vast majority of cases there is no differential shown between the Interior and Indian River sections. While under the Act it is supposedly mandatory for the retailer to show these differentials insofar as the published ceilings which are made available to consumers in vegetable markets are concerned, there is no indication that such a differential exists as shown at the f. o. b. level. In some instances, the Florida price is based upon the Indian River ceiling areas; in others, the Florida price to the consumer is based upon Interior f. o. b. ceilings. It is apparent that OPA district and regional offices are spending a great deal of time on clerical help in an attempt to establish what that office considers proper differentials between areas when in effect the apparent errors in calculations or lack of uniformity in ruling result in graeter discrepancies than the ones they are trying to correct. A further analysis of ceiling prices by areas and by states reveals that a single pound price to the consumer could be established for not more than four areas in which Florida ships fruit with less discrepancies than is apparent in these carefully and voluminously announced ceilings.

This article has attempted to explain in some detail the basis for arriving at ceiling prices in order to show the grower what he might reasonably expect if all fruit were selling at ceiling and in order to provide information in general as to how ceiling prices are built up to the consumer. The opinion is gaining many followers that the whole price ceiling system on fresh fruits and vegetables may shortly be eliminated following the cessation of hostilities with Germany and that even if ceilings prevail the size of the citrus crop may not warrant fruit selling at the presently announced ceilings.

It is further felt by some that attention may be directed away from ceilings to support prices. Without raising the question as to the desirability of support prices, it may be well to point out here the need for exploring this subject so that in case of an overall support price program the Florida citrus industry could receive fair and equitable

(Continued on page 18)

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FLORIDA CITRUS COMMISSION EXERTS GREAT ACTIVITY IN RESEARCH

(Continued from Front Cover)

fruit — based upon weekly samplings during the season, has been obtained. This survey has now been carried on for three years and the trends in the over-all picture for fruit being shipped out of the state are becoming apparent.

Over 3,500 samples of oranges, grapefruit, and tangerines were analyzed during the year. Each sample of oranges contained ten pieces of fruit, each sample of grapefruit, five fruit, and each sample of tangerines, fifteen fruit. All the results were tabulated upon accounting machines and the cards are available for ready reference.

This information, it is pointed out, has already proved valuable to the industry by providing average values for the determination of the weights of packed boxes of citrus and the variation of these weights with sizes. It is believed the information will prove invaluable at any future date that changes in the maturity requirements in the fruit might be considered.

In the field of processed fruit, the department is working in cooperation with the U. S. Department of Agriculture's Citrus Products Station at Winter Haven where it is striving to improve the quality of canned sections, canned juices and concentrates.

General improvement in the flavor and storage life of canned orange juice and canned grapefruit juice has been observed, and the reports from the eastern markets indicate that the consumer acceptance of orange juice and blend is showing a gratifying increase.

New citrus by-products and additional uses for those already in existence are constantly being developed by the research department. Among the new by-products which have received the attention of the research chemists this year is feed yeast which is produced from press liquor. It is ideal for mixing with animal and poultry feed.

The production of feed yeast is not on a commercial basis but it is expected that it will be by the end of the current year. Already a great demand exists for the product, especially in Florida, which though the second cattle-producing state in the nation, has needed to import a great deal of its feed, especially for dairy cattle.

It is believed that there will be a general expansion in the market and uses for pectin in the immediate post-war years. Up until now this product, which is recovered from the peel of oranges and grapefruit, has been used largely in the making of jelly, but it is expected that tremendous amounts of it will be used in paper sizing and in the sizing of cloth. Its original cost is considerably higher than that of starch but as it goes from five to ten times farther it is much cheaper in the long run.

Continued experiments are being made with citrus concentrates in order to increase their storagability but this problem has not yet been solved. It will have to be, however, in order to obtain the widest distribution of the product.

Considerable research work is being done in the field of frozen citrus concentrates. The department is cooperating wholeheartedly with Dr. Arthur L. Stahl in his work at the agricultural experiment station at Gainesville, and has one member of its staff working at the station. His entire time, as well as a considerable amount of Dr. Stahl's working hours are being devoted to the production and testing of citrus concentrates by the freezing method.

A "most happy future" for this product is predicted by those who have been watching its development. It is declared that frozen concentrates are "still in their infancy" and that unlimited possibilities exist for them, once the problem of distribution has been solved. Regarding this factor of development, the proponents of the product point out that in the immediate post-war years the number of retail outlets for quick frozen products will multiply ten fold.

The frozen concentrates, which are produced without any application of heat at all, are ideal for warm weather beverage-making. As they possess a concentration ratio of from three or four to one, all that is necessary for the consumer to do is to drop a cube of the frozen concentrate into a glass of water and serve. Another advantage is the belief that this product will soon be produced on a basis which will allow it to compete against the synthetic fruit drinks which have flooded the markets during the past dozen years.

It is also expected that large, active markets for dehydrated or-

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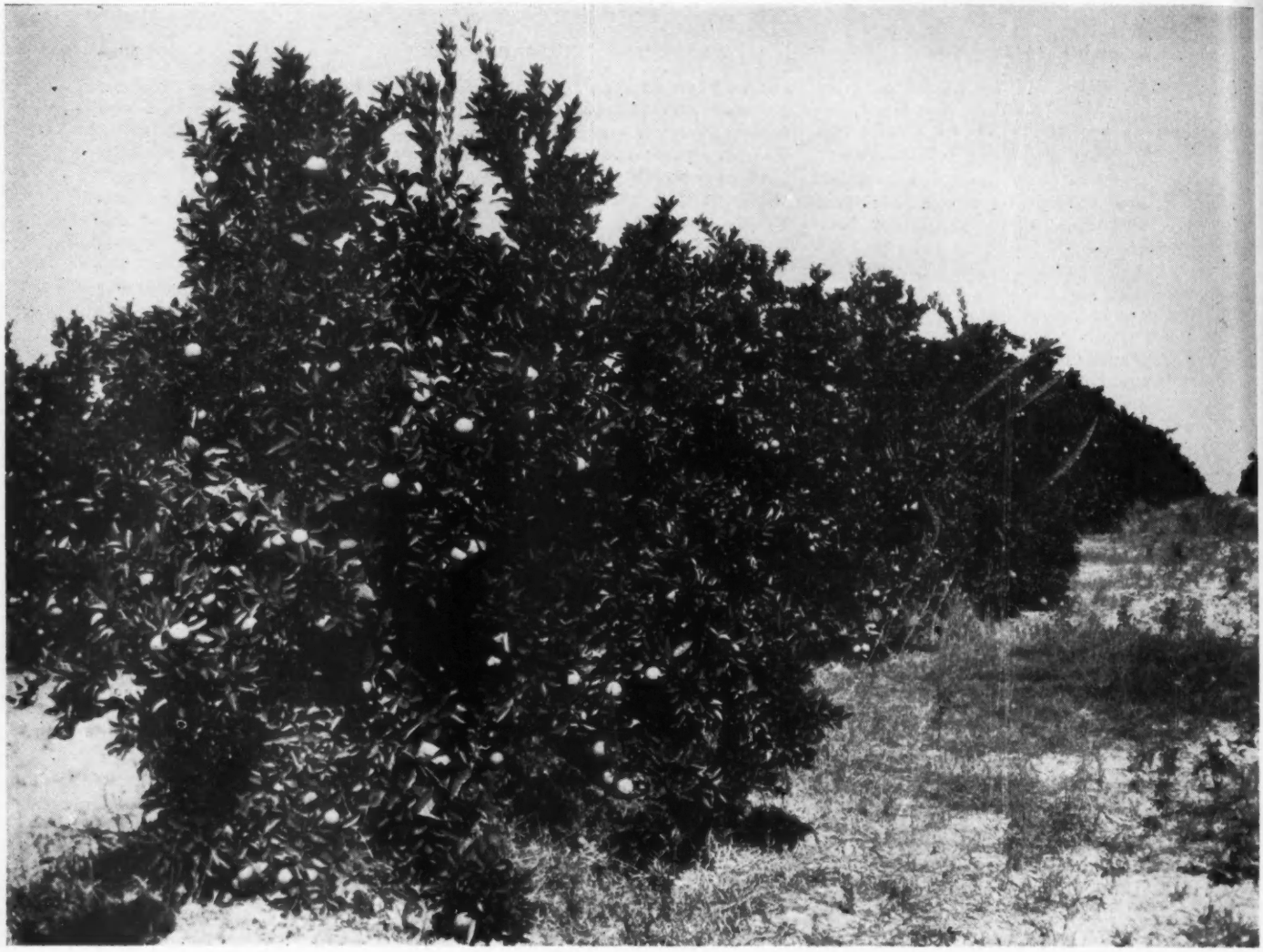

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The fact that all groves we service are cared for primarily with the purpose of developing healthy trees, with ample foliage and free from every possible deficiency makes them, we think, the most sound of all Florida citrus groves.

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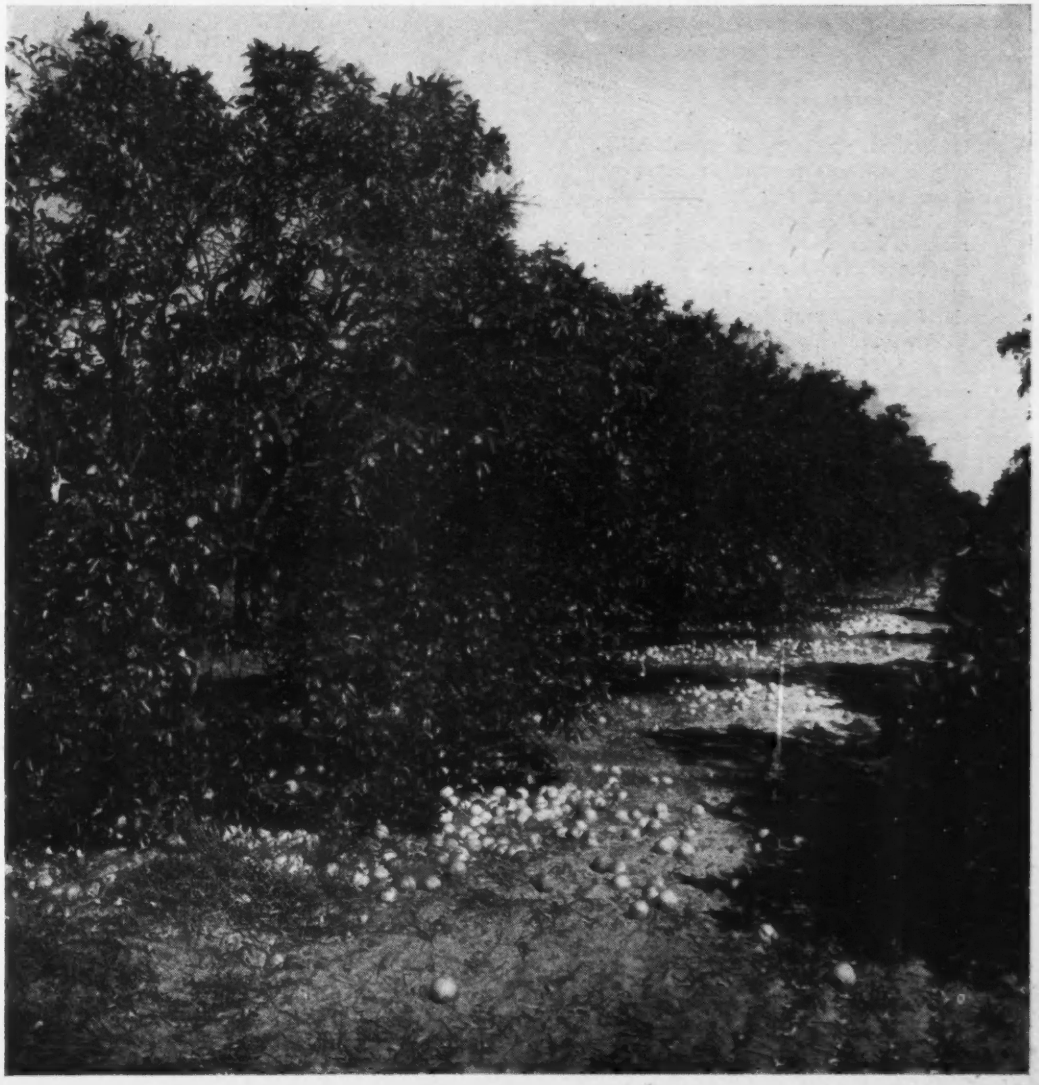
TAMPA, FLORIDA

The Difference Lies In Tree Condition As Reflected By Good or Poor Fertilization...

The top picture on this page is from a grove fertilized and serviced by the Superior Fertilizer Company, taken just a few days after the recent storm. The picture reproduced below was taken on the same day in a grove located just across the highway from the grove pictured at the top of the page. It is not fertilized or serviced by our company. The heavy foliage and healthy condition of the one grove kept the storm damage to a minimum, while the exposed fruit and weakened condition of the other grove made it an easy target for the wind.

Not only in the case of the past storm but in the event of a freeze or any other disaster to Florida's citrus industry the same marked difference in the effect of damage done will be reflected between the well-fed and the under-nourished trees.



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P. O. Box 1021

FLORIDA CITRUS COMMISSION EXERTS GREAT ACTIVITY IN RESEARCH

(Continued from page 9)

ange juice will be developed just as soon as the product is being produced in sufficient quantities to enable it to be sold at competitive commercial figures. Research on this product is being carried on in northern laboratories and the results are being closely watched by the research department. Already the United State Government has shown a keen interest in this product and it is expected that a plant for the production of dehydrated orange juice will be in operation in Florida by the end of the year.

Although the research department, whose appropriation has been increased somewhat for the coming year, has sufficient funds with which to handle its immediate needs, it was pointed out that in the post-war years it will have to receive a considerable increase in finances if it is to do the job necessary if Florida's citrus industry is to enjoy continued health and progress.

The current state tax on citrus fruit (as fixed by the 1941 legislature) for the purpose of advertising, is one cent per box on oranges, three cents per box on grapefruit, and five cents per box on tangerines. These funds are handled by the State Treasurer's office but they are earmarked for the industry and the Citrus Commission.

However, only five per cent of these advertising funds have been allocated for research which, of course, makes the funds available for this all-important activity only a microscopic proportion of the total gross proceeds of the industry. This forms quite a contrast to the trend in modern industry in which a sum of from one to two per cent of the gross income is usually set aside for research development.

Therefore, it is believed that the industry must become reconciled to the fact that there will have to be earmarked for research a much larger proportion of its gross take, an action which, in the long run will pay tremendous dividends.

Meanwhile, the research department of the Commission is fully cooperating with the existing conditions and is doing a good job with the tools at hand, it is said.

We cannot again afford to think of agriculture as a refuge or national poorhouse in times of economic difficulties.—Secretary Wickard.

— The —

X-CEL PROGRAM

— Is —

SCIENTIFICALLY PLANNED
ECONOMICALLY SOUND
EFFICIENTLY OPERATED

The rapidly changing future will, in our opinion, demand from us all greater effort and a higher degree of intelligent planing. The most successful agricultural producers in Florida will, in our opinion, be those who substantially lower operating costs and at the same time increase yields and improve quality.

This concern is Florida owned and operated. We are vitally interested in the success of Florida producers.

We offer a friendly and competent technical service, and we shall appreciate every opportunity you give us to serve you.

X-CEL FERTILIZERS
X-CEL SEEDS
X-CEL FEEDS
X-CEL INSECTICIDES

Jackson Grain Company

Faithfully Serving Florida Agriculture
For Thirty-Six Years

Tampa - - - - - - Florida

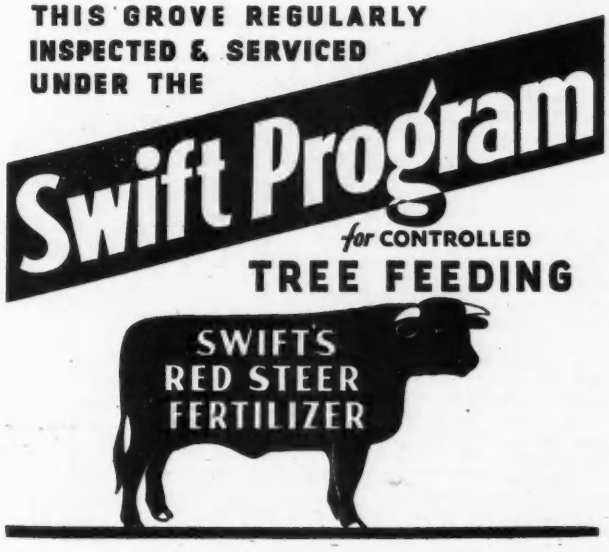
Your premium coupons are redeemable with
WAR SAVINGS STAMPS

Our Production Keeps Climbing!

The day is coming when plant food supplies will be easier to get. We can't name the day but we do see signs that indicate it won't be too long.

And speaking of signs . . . look for the one that marks groves as being operated under the SWIFT PROGRAM FOR CONTROLLED TREE FEEDING. Watch these groves grow more luxuriant . . . more productive . . . and more profitable. Florida growers who have watched the Swift Program for Controlled Tree Feeding in operation have marvelled at seeing run-down groves reach top production — and top profits. And the Swift Program keeps them there, too.

There is satisfaction in knowing that someday this same profit making program can be adapted to the exact needs of all of your groves.



Swift & Company, Plant Food Division

Bartow, Florida

ADVERTISEMENT—LYONS FERTILIZER COMPANY

The LYONIZER

Department

COMPILED BY THE LYONS FERTILIZER CO.

Reports Of Our Field Men . . .

WEST CENTRAL FLORIDA
E. A. (Mac) McCartney

In Pasco, Hernando and Citrus Counties, where the storm last month did considerably less damage to citrus than other sections, most growers have gone ahead with their regular fall application of fertilizer. The new ceiling prices on citrus have been encouraging to growers. Hernando County is becoming more progressive in citrus production and is now planning irrigation systems. Ben Wilson of Spring Lake is the first grower in Hernando that we know of to put in an irrigation plant. Plans have been made by the Brooksville CGA to buy equipment for delivery in time for the spring nutritional spray. Cecil Bishop, new production manager at Brooksville has made a good start and we are sure that he will do a good job. Mr. Slayden, the Association Manager, has made a number of improvements in the packing house, some of which we wonder why were not made before.

NORTH CENTRAL FLORIDA
V. E. (Val) Bourland

The weather has been cool during the past few months and this fact helped us a great deal in salvaging a considerable quantity of our grapefruit that was blown from the trees by the hurricane. Packing houses are busy, but considerable fruit is being thrown out of regular grades as a result of hurricane damage. Trees in general are looking bad from the "big blow" and some trees are putting on new growth. Most groves have been cultivated recently and quite a bit of spraying is being done. Truck growers are making a determined effort to reestablish their fall plantings and some of these crops are looking good. The fall application of fertilizer is now getting well under way.

POLK COUNTY
J. M. (Jim) Sample

Groves were beginning to suffer from dry weather until we had a nice shower on the 20th of the month. This rain will be of much help to us. Citrus trees all through the ridge section were badly whipped during the hurricane and have lost a lot of foliage. New growth is putting in an appearance and we have noticed a little bloom. Fruit is moving at a rapid rate and all canning plants are busy taking care of the grapefruit that is bringing good prices. Growers in this county will start their spray program in January and will follow through in an effort to have quality fruit next season and at at the same time give the trees a little extra vitality. We particularly urge all growers to follow through with their spray program.

SOUTHWEST FLORIDA
F. W. (Felton) Scott

Vegetable growers in this territory suffered extremely heavy losses during the hurricane and many of them will not get started with plantings again until they put in their spring crops. The cabbage and escarole crops are looking good and the prices being received are satisfactory. There is a heavy acreage of squash coming along and if other sections have planted heavy to this crop it is probable that we will have plenty of squash. We have had some tough going with citrus groves all year. We suffered all spring and summer from dry weather and then the hurricane did us an additional damage. Fruit is moving from this section as fast as it can be picked and the prices have been satisfactory. Growers have gone ahead with their regular fertilizer application during the past few weeks and have just about completed this operation.

HILLSBOROUGH & PINELLAS COUNTIES
C. S. (Charlie) Little

This section is recovering very rapidly from the storm. There are still quite a few pineapple oranges and tangerines dropping from the tree but this percentage will be small. There is practically no grapefruit dropping at this time. Most shippers have been operating over-time in an effort to get the early oranges on the market. The fall application has been applied and the groves cultivated. Those growers that have wood for firing their properties have placed the wood in the groves. There is some spraying being done. The salt spray did considerable damage along the coast. Trees that were defoliated are putting out a new growth. There is considerable wood damage as a result of the salt spray.

POLK COUNTY
J. B. (Jeff) Britt

At this writing a good many of the growers have finished straightening up their trees that were blown over by the recent hurricane. In this territory probably a greater percentage of the grapefruit crop was blown off than was at first indicated. Much of this fruit could not be salvaged because it either would not pass the test or the growers were unable to get it moved to the few canning plants that were running to their normal capacity. Consequently much of the fruit spoiled on the ground before it could be salvaged. Indications are that the orange crop damage is about the same as was at first anticipated, but there is still considerable droppage of early and midseason varieties. It has been dry throughout this territory and growers have been irrigating their properties.

Our
Fighting Men
Need
Our Help

Buy Bonds

ADVERTISEMENT—LYONS FERTILIZER COMPANY

The effects of the recent hurricane is still bein' felt by citrus growers all over Florida. The damage looked mighty bad right after the storm but the effects of it is still bein' felt 'specially in the case of early and midseason oranges, which continue to drop from the trees in large numbers. Valencias is standin' up pretty good though, and the amount of grapefruit which was able to be salvaged was a lot more than most of us thought it would be.

There was a heap of trees damaged, too, not only in trees actually bein' blown down, but in havin' lost their leaves and in a lot of cases losin' a lot of wood as well. On the other hand there is a whole heap of new growth comin' out now, and it is mighty important that this new growth be developed as strongly as it can be — and there ain't no better way to do the job than by fertilizin' well all grove properties right now, if you hain't already done so. Fellers who know also tell me that a dormant copper-zinc spray is a "must" for January. The reason, they say, is because this spray will help control melanose and also helps add vitality to the trees.

Vegetable crops that withstood the storm are lookin' pretty ragged right now, and where the crops was ruined a lot of squash and g r e e n o n i o n s has been planted which is doin' okey. Pepper plant seed is scarce in most places so this crop won't be so big in Florida this year. English peas is doin' fine most everywhere and prospects is good for a fine crop. Strawberries will be on the market in pretty good amounts right soon, but the ceilin' price of 26 cents is not goin' to make the growers rush their crop so hard as in other years when early berries brought a big premium.

A few years ago the idea of fertilizin' a cattle pasture would have made most folks laugh, but it's bein' done now in a lot of places with mighty payin' returns. The rich pastures not only bring bigger profits to the cattlemen but also makes a better eatin' product for the folks who eat the beef. Pickin' the best land and fertilizin' it right brings almost amazin' results. Up in Marion county more'n 15,000 acres of farm land has been planted to oats and rye this fall for cattle feed.

This business about water conservin' has been gettin' more and more serious for several years past and now The Peace River Soil Conservation Service district has opened offices in Arcadia and has four men workin' out of their office. Before actual work of water control and soil conservation can get under way a complete classification of DeSoto prairie land soils will have to be made. The program is a long-range job from which farmers as well as cattlemen will benefit in years to come.

So long. See you next month.

UNCLE BILL.

The Fertilizer Outlook . . .

The stepping up of the munitions program in recent months has affected superphosphate production and the supply of nitrogen available for use as fertilizer, according to The National Fertilizer Association. For many months the superphosphate industry has been getting considerable quantity of sulphuric acid from Ordnance plants, but this supply has now been greatly curtailed. In fact, it is now indicated that the total superphosphate supply for the year may be less than last year, although not enough less to interfere seriously with the production of mixed fertilizers.

Fixed nitrogen produced in Government war plants was until recently being converted into nitrogen solutions for use in mixed fertilizers and into ammonium nitrate, but this nitrogen is now being used in munitions manufacture and the supplies of these materials available for fertilizer use this coming year will be very much less than last year unless there is a change in the munitions program.

Shipping priority has been granted for importing 850,000 tons of Chilian nitrate this year as compared with about 600,000 tons imported last year, and this increase will offset a considerable part of the reduction in other nitrogen supplies.

Labor is another factor which is tending to handicap the production of mixed fertilizers and certain materials. The labor situation is critical in the phosphate rock mines, in superphosphate plants, and in mixing plants in all parts of the country.

An early termination of the war in Europe would tend to increase fertilizer supplies. More sulphuric acid would be available for making superphosphate; more nitrogen solutions and ammonium nitrate could be produced; and due to cut-backs in war plants more labor would be available to fertilizer plants. Fortunately there was a considerable carryover of mixed fertilizer from last season in many sections of the country, and mixing plants have been running to capacity all summer. It will therefore be possible for most if not all fertilizer companies to ship fertilizer for spring use this fall and winter if farmers will order it early and accept delivery. This was done last year with the result that many farmers got fertilizer who would not have gotten it otherwise. Early movement of fertilizer is more important this season than last.

There is every assurance that the total potash supply will be equal to total demand, but the supply of sulphate of potash may be short in a few areas. It is also possible that in some localities where an unusual demand has developed during the past two or three years the total potash supply available for that locality may be insufficient. It is the general belief, however, that nearly everywhere the supply will be adequate for use in mixed fertilizers of any desired potash content and for direct use also.

Growers Should Order Early

Farmers and growers have in the past purchased their fertilizer, largely, during the first six months of the calendar year. But when faced with the increased demand created by abnormal war conditions manufacturers learned that their equipment, storage space and labor supply were inadequate to meet the

FOR EVERYTHING THAT GROWS ON EARTH

High Grade

TEXAS CALCINED MAGNESITE

Manufactured By J. J. Cates, Llano, Texas

Home Office, Cates Building, Sanford, Fla.

A fertilizer material rich in Magnesium for grove, nursery and farm requirements. Contains an average of 80% Magnesium as Magnesium Oxide — **immediately** active and available for improving soil pH Value, correcting Magnesium Deficiency, and building up a Magnesium reserve in the soil.

Your Fertilizer Manufacturer Will Supply

TEXAS CALCINED MAGNESITE

in your favorite fertilizer brands at from 2 to 4 units for maintenance depending upon conditions, or will recommend **direct application** for correction of severe Magnesium Deficiency at a rate per acre to suit your particular condition.

"BRONZING" (Magnesium Deficiency)

of **citrus trees** and the various symptoms of Magnesium Deficiency in **vegetables** indicate serious losses in production which you cannot afford to take. The use of **Texas Calcined Magnesite** will pay big dividends in healthy trees and plant condition, increased volume of production, and improved quality of fruits and vegetables.

TEXAS CALCINED MAGNESITE now used and sold by:

Lyons Fertilizer Company, Tampa, Florida
Wilson & Toomer Fertilizer Company, Jacksonville, Florida
Florida Favorite Fertilizer Company, Lakeland, Florida
Haines City Fertilizer Company, Haines City, Florida
Polk County Fertilizer Company, Haines City, Florida
Maxcy Fertilizers, Inc., Frostproof, Florida
Wheeler Fertilizer Company, Oviedo, Florida
Chase & Company, Sanford, Florida
Citrus Culture Corporation, Mount Dora, Florida
Plymouth Fertilizer Works, Plymouth, Florida
Parrish Fertilizer & Manufacturing Co., Deland, Fla.
Naco Fertilizer Co., Jacksonville, Fla.

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situation unless production and deliveries could be extended over a longer period of time. Normally, approximately 85 percent of the fertilizer was delivered during the first six months and 15 percent during the last six months of each calendar year.

Necessity is bringing about a marked change in this situation. Manufacturers were forced to use their facilities to the utmost during the first six months in 1942 and again in 1943 to supply the demand. A year ago an appeal was made to the farmers to secure a greater portion of their annual fertilizer requirements during the last six months of the calendar year. The response was excellent and in the last half of 1943 more than 30 percent of the annual requirements was delivered.

Farm deliveries during the last half of 1942 amounted to nearly 2,000,000 tons compared to the normal 1,500,000 tons. In 1943 deliveries during the last six months of the calendar year mounted to 3,500,000 tons. This afforded the manufacturers some relief during the first half of 1944, but not enough. They were taxed to capacity in delivering the 8,000,000 tons during the first half of the year.

This trend towards early acceptance of fertilizers by the farmer must continue as long as consumption continues to increase at the present rate. There is no other way out. A factor which is now more acute than ever before is that trucks and tires are wearing out and deliveries are becoming increasingly uncertain. Not less than 4,500,000 tons of fertilizer should be delivered to the farmers of the nation by January 1, 1945.

If fertilizers ordinarily contribute from 20 to 25 percent of the total crop production of the nation as has been estimated, deliveries from January 1 to June 30 of 8,000,000 tons would make a proportionate contribution of 15 to 16 percent. The other 9 to 10 percent will materialize or fail to materialize, according to the willingness of the farmer to accept and store on the farm a substantial portion of his annual fertilizer requirements between now and Jan. 1, 1945.

INSURE your future—
Save WITH WAR BONDS

Douglas Jerrold said it...

"Earth here is so kind that just tickle her with a hoe she laughs with a harvest."

Farming in Florida in 1944 and farming in Australia in the early 1800's is, of course, not comparable. The Australian farmer of the 1800's — according to Douglas Jerrold, English playwright — needed only to till the soil to reap a harvest.

However, 1944 Florida farmers know they must do more than "tickle her with a hoe" if they expect Mother Earth to produce a profitable harvest. They realize the need for proper fertilization. And many successful Florida farmers and growers have found that fertilizers prepared especially for Florida soils produce the best results.

Gulf Fertilizers, developed through more than 40 years of Florida soil study and field experimentation, are "keyed to your soil." You can depend upon the recommendations of your local Gulf Field Man. His advice on plant foods, on amounts and timing of applications, is based on up-to-date knowledge of what it takes to grow profitable crops.

Florida earth is "kind." But for maximum yields of quality fruits and vegetables, use Gulf Fertilizers and Gulf Field Service.

For Everything that Grows in Florida...use

GULF Brands of FERTILIZER

The Gulf Fertilizer Company

Tampa and Port Everglades, Florida

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JACKSONVILLE, FLORIDA

Communication

What appears to be a most valuable type of new "Seedless" guava has been discovered here in Florida. Last year in Orlando I talked with a lady who said she had a guava plant which produced large fruits with thick meaty walls and a few seed in a seed-pocket near the end of the fruits. The tree had been hurt by cold in 1940, and had not begun to bear fruit since the freeze. In August 1944 I went back to this farm and sure enough the bush had put on a few fine fruits which were of large pear-shapes, with **very few seeds,** thick walls of flesh nearly one inch in thickness before reaching the seed-pockets. The flesh color was greyish-white finely flecked with small dull-brown spots. Flesh solid and buttery and of excellent flavor and different from the flavor of any of the common types of guavas. A very delicious fruit of an entirely different quality. Sugars and acids well blended. The skin color is yellow. Fruits very solid and heavy and about 2½ inches long. Fruits ridged or lobed; skins smooth.

I asked about the history of the trees and here is what she said: "Seeds of fruits were brought from Nassau about 20 years ago and planted 5 miles from Orlando. When one of these trees began to bear fruit it was found to be of large size and with few seeds and a much different flavor from our guavas resembling that of an apple and we call it the 'Apple Guava.'

"So I got one fruit and believe me or not it had but five (5) seeds and these seeds had hulls like an apple — I never saw a guava seed before with hulls — and from these seeds I got the two plants you see on my place. One has the small seed-core with few seeds near the end of the fruits and the other has the small seed-core in the center of the fruit with few seeds. Both are fine-flavored fruits and have thick meaty walls, and large fruits. These two seedlings never produced fruits with hulls around their seeds like the original parent fruit and are like regular guava seeds."

She said she recently looked for the original old seedling guava which was in a cow-lot and could not find the old plant or could not recognize it since there were other common guava bushes close to where it originally grew and she did not know whether the remarkable parent type had died or not but hoped it still was alive.

I bought the bearing seedling "Apple Guava" plant which produced the small core of seeds near the end of the fruits, and two small seedlings from seeds of the fruits off the other Apple Guava bush. Later I bought a single fine fruit.

There is a strong possibility that the original type from Nassau was a hybrid — a guava crossed with some tropical fruit. The size, shape, flavor of the fruits and the fact that the parent bush produced fruits with "hulls" or shells points to this possibility. Whatever it may be it is a remarkable improvement over our very seedy, thin-walled guavas and might well be of considerable value to homeowners and commerce.

Signed.

"A GROWER."

CEILING PRICES COVERING FLORIDA CITRUS FRUIT

(Continued from page 8)

treatment.

All basic commodities are supported by producer loans at 90 per cent of parity except for cotton which is supported at 92½ percent of parity.

Except for the so-called basic commodities, price support could easily be dropped after the 1944 crop simply by not appropriating money for support in the case of the Steagall commodities and making no announcement of support prices for other commodities in future years.

Classifed Ads

FOR SALE — 35,000 ft. 8-5/8" OD 21.31 L. W. Line Pipe in 40-ft. Lengths P. E. Beveled, used but in excellent condition.
UTILITY & INDUSTRIAL SUPPLY COMPANY
921 East Michigan Ave. Jackson,Mich.

Will pay $5.00 for a used Citrus BUDDING KNIFE in fair condition. Can also use badly worn budding knives if still serviceable for $2.50. Will buy a number of "Rogue" citrus seedlings from nurserymen, 10 cents per seedling. Must be vigorous variant plants. Donald J. Nicholson, 1224 Palmer St., Orlando, Fla.

CITRUS TREES—Best quality usual varieties on sour orange or rough lemon stock. Robt. P. Thornton, c/o Clay Hill Nurseries Co., Box 2880, Tampa, Florida.

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at pre-war level and giving 100 per cent cooperation to our government — is our war-time aim — We appreciate the loyalty and cooperation of our subscribers in 27 Florida communities.

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Irrigation Engineering Advice backed with a Quarter-Century Experience in the Florida Citrus Field.

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